

## MIDAS EVALUATION

### Subject Matter Expert (SME) Panel: Executive Summary of Findings

- **Regarding the Novelty of MIDAS Research Areas:**

The expert panel was asked to assess the novelty of the 11 topics (as previously identified through topic modeling analysis) that most differentiated or delineated MIDAS-supported research from that primarily supported by the comparator groups.

- Two of the eleven research areas were rated as highly novel (i.e., rated 4.0 or above on a 5-point scale).
- These highly novel areas include:
  - Highly Novel Research Area 1  
“Disease Modeling Using Serotype Immunity Data”: Panelists noted that the abstracts in this research area present numerous novel results that enhance understanding of the interplay between the immune system and disease serotypes, and are innovative applications of mathematical ideas and methods to disease modeling. Panelists noted that the research focusing on antibody-dependent enhancement was of particular interest and potentially very important.
  - Highly Novel Research Area 2  
“Epidemic Forecasting Using Non-traditional Data Sources”: Panelists reported that some of the results were known, but that these abstracts are products that only a program like MIDAS could produce. Research on the impact of travel and travel restrictions was noted as novel, and the analysis of personal behavior in the 1918 influenza outbreak was noted to be novel and insightful. One reviewer noted that the works in this research area used innovative approaches and modeling.
- The other nine research areas identified through topic modeling were rated as less novel (i.e., scoring between 2.0 and 3.8 on the same 5-point scale referenced above).

### **Regarding the MIDAS Program’s Education and Training Components:**

- All of the expert panelists reported that they believed MIDAS has fulfilled its capacity building mission.
- All panelists were impressed by the number of students and postdocs trained through the MIDAS program and reported that, based on the number of students trained, MIDAS possesses a productive training component.
  - It was noted that MIDAS has trained the next generation of disease modelers with a “unique set of skills beyond that of their advisors”.
  - One reviewer also noted that MIDAS’ educational activities, like the seminar series, play an instrumental role in the training of individuals in the field.

- However, there appeared **mixed** reactions by panelists as to the distribution and outcome of trainees into various areas of employment.
  - Some panelists were disappointed in the number of trainees now in *academic tenure track positions*, while others were impressed by those same figures.
  - Some panelists were encouraged to see trainees with modeling skills enter *public health and government positions*. One panelist, for instance, noted that such positions are likely to have more of an *impact* on the field of infectious disease modeling and dissemination, such as by or through influencing field-specific policy. Such enthusiasm, however, was far from uniform and was modulated by other panelists who indicated that diffusion of trainees or former trainees with such skills into the active “*practitioner community*” (e.g., specific government public health departments or agencies having direct jurisdiction over - or linkages to - infectious disease related issues or matters) remains relatively modest.